What is claimed is

1. A method of programming industrial controllers, in particular, motion controllers, where the user links graphical elements, in particular, control structures and function blocks, by using a graphical editor to form a motion control flowchart that can be visualized on a display device, comprising that additional graphical elements which contain the function interface of the corresponding structured text subprograms and which are also made available to the user are automatically generated in motion control flowchart notation from user-defined structured text subprograms as structured textual language by means of a converter in the manner of a compiler.

2. The method according to claim 1, comprising the following successive steps:

a) a structured textual language is generated from the flowchart,

b) the structural textual language is converted in a processor-independent pseudo-code,

c) the processor-independent pseudo-code is loaded into the controller,

d) the processor-independent pseudo-code is converted into executable processor code.

3. The method according to claim 1, wherein adequate programming language commands are made available to the user in the flowchart editor, depending on the underlying machine design and/or hardware configuration.

4. The method according to claim 1, wherein the automatically generated graphical elements are used by the user as language elements of the motion control flowchart.

5. The method according to claim 1, wherein structured text according to IEC 6-1131 is used as the structured textual language.

6. The method according to claim 5, wherein that a user can switch at will between structured textual language, contact plan and/or function plan as forms of representation for formulating conditions.

7. The method according to claim 1, wherein at least one loop and/or at least one parallel branch is/are provided as language elements in motion control flowchart notation.

8. The method according to claim 7, wherein the individual commands are initiated in the same interpolator cycle within the respective parallel branch.

9. The method according to claim 1, wherein parameters are set for the function blocks are by mask input in motion control flowchart notation.

10. The method according to claim 1, wherein function blocks are combined into modules, which in turn appear as function blocks, in motion control flowchart notation.

11. The method according to claim 10, wherein it is possible to interleave modules in motion control flowchart notation.

12. The method according to claim 1, wherein multiple assignments are possible for the user in motion control flowchart notation for the assignment of variables in function blocks.

13. The method according to claim 1, wherein function blocks, which represent functions requiring a period of time, contain step-enabling conditions in motion control flowchart notation.

14. The method according to claim 1, wherein the graphical elements of the flowchart are positioned automatically.

15. The method according to claim 1, wherein the graphical elements of the flowchart are linked together automatically.

16. The method according to claim 1, wherein the flowchart can be displayed in an enlarged or reduced form in the display.

17. The method according to claim 1, wherein reconverting in motion control flowchart notation is possible by means of marks in the textual language.